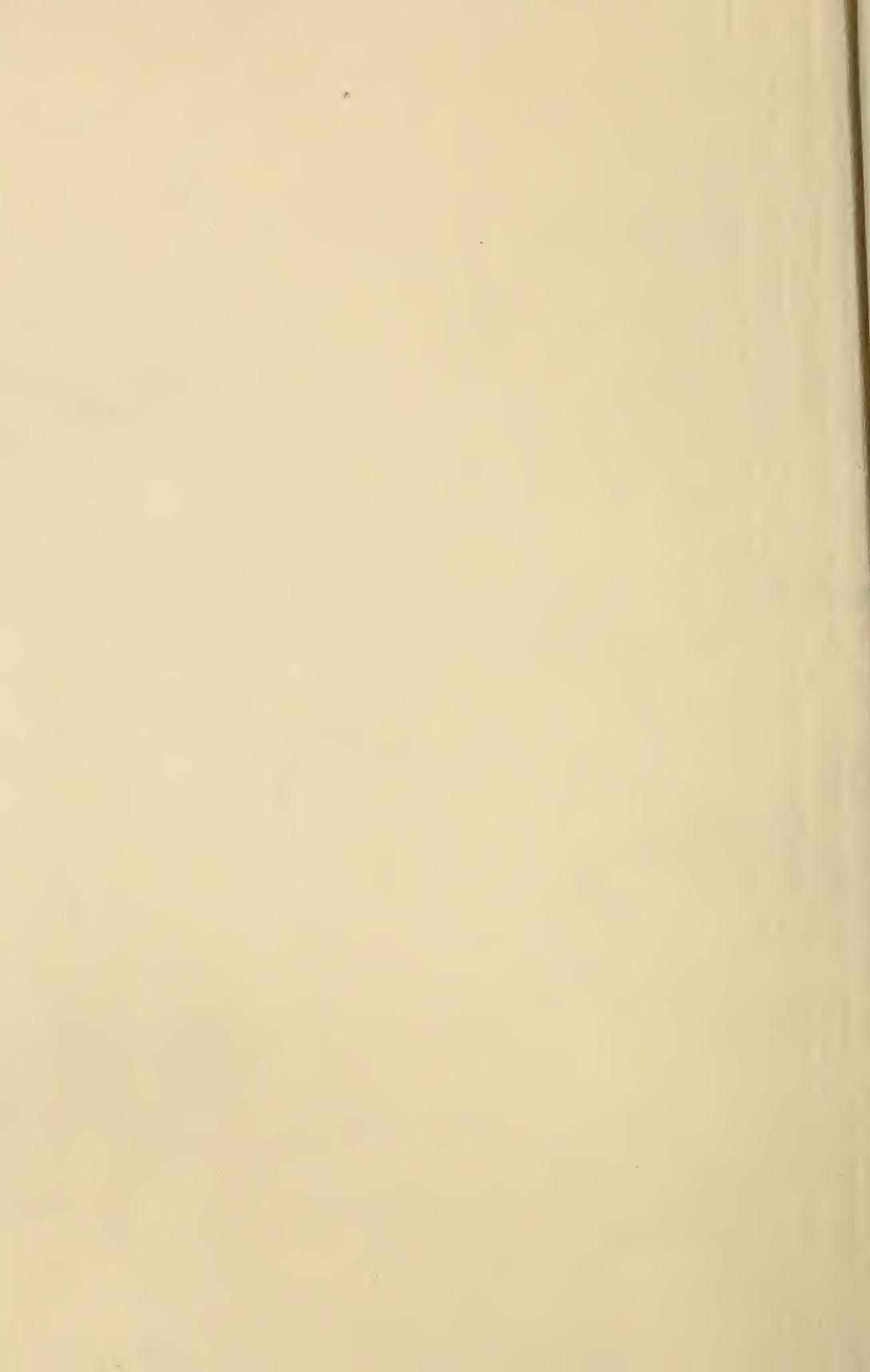


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Vol. XXIV.

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No. 16.

STRAY STRAWS FROM DR. C. C. MILLER.

DON'T TRY to scrape sections when it's so hot propolis runs. Better have it cool enough so propolis is brittle.

WOODEN SEPARATORS can be made to do service very well instead of the basket-splints used by N. T. Phelps.

DON'T LEAVE SECTIONS on the hive, when the flow stops, for the bees to daub with glue. If you hope there will be a fresh flow, wait till it comes and then put the sections on again.

WHILE THIS SEASON has been remarkably good in some places, from many others come unfavorable reports; and I doubt whether honey will rule as low as was anticipated. [Quite right. See editorials.—ED.]

YESTERDAY I passed a field of alfalfa in full bloom. Bumble-bees and other wild bees were on it, but not a hive bee. [This confirms the old statement that some of the very best honey-plants will not yield nectar some seasons or in some localities.—ED.]

CRIMSON CLOVER was coming up Aug. 1 very thick where the seed dropped on my patch sown in the spring of 1895; and I don't know that there has been a day this summer but a few blossoms could be found, although it was supposed to do its blooming last year.

IN REPLY to a question sent out by Secretary Stone, he gives in *A. B. J.* the following reports as to the prospects of the honey crop in Illinois about July 1: Very good, 2; good, 6; fair, 5; light, 1; poor, 6; very poor, 4. Balancing good against poor, there is left 4 fair and 2 very poor.

E. E. HASTY first mentioned, I think, that mixing bees inclines to swarming. It's true, with limitations. Mix bees from a dozen colonies, and introduce a queen to them, and I think they'll not swarm any sooner than if all from one colony. But throw into a colony

with a laying queen some foreign bees, and they're very likely to ball the queen, start queen-cells, and then swarm.

FRIEND GETAZ explains, p. 563, that the price of honey is nearly inflexible, because "the price of honey is governed by the price of the corresponding quality of the corn syrup." But how about comb honey? Does glucose control the price of that? [That is a good point. Comb honey does not fluctuate any more than extracted. Will friend Getaz please help us out? —ED.]

BRO. BRODBECK seems to think the international Union can be made national if there is no amalgamation. Now tell us why it can not be made national *after* amalgamation. And do I understand you to say, Bro. Brodbeck, that you now want to kill the Union and get up something else? If so, just tell us what it is; and if you've got something better, I'm with you. [See editorials.—ED.]

I CARE VERY LITTLE what is done about amalgamation, the Union, or the North American: but I get weary with so much foolish talk. In one breath the plea is made to save the Union as it is, and in the next to change it to something else. Now, if there's some plan for making out of either new or old cloth just what's needed, why not tell us just what is wanted? [See editorials.—ED.]

MRS. SHERMAN says, in *Am. Bee J.*, that she had a ton of honey of such strong, fiery taste from milkweed it could scarcely be eaten. She put it in shallow vessels covered with cheesecloth, and after a time the strong, peppery taste all left it. [This agrees with reports that have come in during the past, to the effect that all disagreeable or peppery or twangy honeys when new become very palatable when evaporated down.—ED.]

THOSE CALIFORNIANS have queer ways. Up where I live, when a section of honey is put on the table it's all honey with the wood removed. According to Skylark, p. 561, when a section of honey is put on his table it's *all wood!* What a digestion he must have! But that's a won-

derful climate. [I do not understand yet how you can separate "sections from the wood." See page 561. Skylark, appears to me, has the advantage of you yet.—ED.]

SHIPPING-CASES. H. R. Wright gives this sententious bit of instruction, p. 569: "Don't use a case holding over 24 combs (single tier), nor less than 20 combs." No reason given why. That may be all right for Albany; elsewhere, I doubt. If I put 24 sections in a case it will be double tier in the right kind of a case, and for some markets 12 sections is a good number in a case. [In general I think H. R. Wright's advice is better. While you may be able to put up your honey in double-tier 24-lb. cases, the average bee-keeper will give better satisfaction in the average market by using the single-tier.—ED.]

SINCE IT HAS been demonstrated that sweet clover makes good hay and pasture, many of our farmers, instead of trying to exterminate it, as has hitherto been the custom, are encouraging its growth.—J. L. Gandy, Nebr., in *A. B. Journal*. [This is a good point. Let us keep them circulating. I expect to say, and keep on saying, until I do not have to say it any more, that sweet clover is not a noxious weed, but is one of the best honey-plants in the world; that it yields nectar everywhere, and that its flow is prolonged, not days, but weeks and weeks; that if it grows anywhere it grows in waste places; is easily exterminated; that cattle learn to eat it in preference to many other kinds of green forage, and it makes a fairly good hay. I have said these same things before; but it seems it must be repeated in different ways in order to make people believe it.—ED.]

NOW LOOK HERE, Mr. Editor, none of your insinuations and wrong deductions. On p. 499 you call me the only boy that doesn't carry a knife. Nothing of the sort. I carry two—a penknife and a barlow, besides strings and other things. But did you never forget to change the contents of your pockets when you changed your trousers? The chief point, though, was that the book with scissors attached *always* goes to the apiary with me. [Yes, sir. I used to forget, many and many a time, to change the contents of my pocket—knife, strings, and other things—when I changed my trousers; but in later years I fixed this trouble by having these articles in every pair of trousers, so I am never without them. But my "chief point" was that very, very few bee-keepers use a book with scissors attached, and nearly all have a knife, and, therefore, knowing how to clip the queen's wing with a penknife, or even a common pocket-knife, whether sharp or dull, is a thing worth knowing.—ED.]

PROF. COOK, in *A. B. J.*, doubts whether worker-bees ever actually kill a drone, while a

writer in *British B. J.* says he has seen workers sting drones. I don't remember that I ever saw a worker sting a drone, but I've often seen them doubled up trying to sting them or else pretending to do so. Seems to me that I've seen the statement that drones couldn't live if left to feed themselves, and that when the workers stopped feeding them they starved. [I have certainly seen workers make a big show of trying to sting drones. Whether they have ever actually done so, I can not say. Bees have a fashion of making believe that they are trying to sting and scare, and I should not be surprised if Prof. Cook were right. Yes, you saw a similar statement in the *A B C of Bee Culture*, that drones could not live if left to themselves, and A. I. Root is authority for it. He does not say, however, that drones would starve if given access to open cells of honey, but that they would die in a clover-field when the blossoms are secreting nectar at their best.—ED.]

MY WIFE SAYS I'll make a wrong impression by telling about taking five supers from one hive. Well, then, let me tell the other side of the story. I've some colonies that have given only one super. In fact, in the past two years of failure some very poor stock has worked in. But she can't stop me from adding that one colony has given 8 supers of 24 sections each—only one colony, mind you. [Tell that good woman that I do not think you gave any wrong impression, for by your language I took it that the colony referred to was your very best. If you have any other one that is ahead of that, or which has produced this year 8 supers of 24 combs, why, I feel like throwing up my hat again. During these poor years, such a feat on the part of any colony for any locality is good. The copious rains we have been having, and which seem to have been prevalent all over the country, give us hope that clover may yet regain its lost hold, and that our old-time honey crop will be known as before.—ED.]

IF SUPERS containing some honey are put on a hive immediately after putting a swarm in it, I believe it has a tendency to make the swarm desert. Wait a day or two before putting on the supers. [The general practice on the part of those who clip their queens' wings, and catch the swarm as it returns, is to put that swarm on another stand under the same set of sections they have been working on. It is much more convenient to do the whole job at once. Mr. Vernon Burt, who comes to my mind as one who practices this plan, rarely, I believe, has a swarm that swarms again when so treated; but I can easily see that sections put over them, containing honey, take away the feeling that they have really got into new quarters. If swarms have any collective or individual idea, to the effect that they are going to the woods, or some place where there is no

honey, comb, nor even foundation, when they are placed in a hive that has sections partly drawn out, and filled with honey, and some bees on them, and if, also, they find foundation or combs in the brood-nest, it *may* make them feel as if they had made a mistake or that they had not got to the place they desired to go to.—ED.]



SKYLARK AND BEES IN THE YEAR A. D. 3000.

I was sitting by the fire, watching the red coals running into fantastic shapes as they broke and fell apart. It was raining, and the monotonous patter on the roof would have put me to sleep if I had not been so much interested in it. This rain, thought I, means honey, if it keeps on long enough. Then my thoughts ran into the secretion of nectar, and I called to mind reading an article by a gigantic idiot, claiming that the ground had not any thing to do with the secretion of nectar—it was all in the atmosphere—it was all absorbed from the atmosphere. Why doesn't it give us nectar, then, in dry years? Why does it wait till there is plenty of water in the ground and plenty of sunshine in the sky?

Then I wandered off into clipping queens' wings, and breeding them entirely off—or breeding queens without wings (as some bee-keepers have claimed is possible), that the queen may meet the drone in confinement. Then I wandered again into a maze of fakes put forward by bee-keepers for want of something to write about.

Finally I became conscious that some one was standing beside me. I did not move till a hand touched me on the shoulder. I started up, and saw a man in light garments—a man of commanding and noble presence, and yet he was not man at all. As I looked into his face I could distinctly see and read the map on the opposite wall beyond him.

"Come," said he, in a hollow voice; "come, and I will show you the great improvements that have been made in bee-keeping during the eleven hundred years that you were asleep."

"Spirit or phantom, goblin from the nether world, do you mean to say this is not the year 1896?"

"Oh, no! this is A. D. 3000."

"Do you mean to say, then, that I went dead more than eleven hundred years ago, and didn't know it—that I was not at home at the time?"

"I know nothing of that; but I know you are almost an antediluvian in the knowledge of bees."

"You are a—a—phantom, and I can not resent your insults."

"And I come to show you what is now, and to tell you how it all came to pass."

"Phantom of the present, forgive me."

"Come, we must away."

We stood together in a little yard surrounded by a fence 15 feet high, with sharp iron spikes all around the top. There were just 15 little boxes, 8 inches square, scattered over the yard, which was about 20 x 50 feet.

"This," said the stranger, "is *your* apiary."

"Apiary!" I cried; "my apiary!" and I kicked one of the covers off into the air. "My apiary, indeed! Why, if they were mine I would throw the whole posse of them over the fence. Fallen Babylon! rehabilitated Rome! they are nothing but bugs—they have no wings."

"Oh!" said the phantom; "no bees have wings now. You can well remember in your days, that men advocated breeding off the queen's wings, arguing that there would be no loss of queens in the wedding-flight. In the latter part of the nineteenth century—the last ten years of it—thousands turned their attention to this single object. After a tireless persistence of 200 years the object was gained. The queen never leaves her hive from the day she is hatched until the bees throw her out of the hive dead."

"Except when she swarms," said I.

"Bees don't swarm now, either. They bred that out too. But, to go on. Finally, when they had made a complete success in getting wingless queens, it became a raging fever all over the bee-keeping world. It mattered not whether a man had one hive or five hundred, he had to have wingless queens. In a hundred years after the first wingless queen was hatched, there was not in the wide bee-keeping world a queen which could fly a single yard. Then as the years went on, the wings of the bees, both drones and workers, grew shorter and shorter each generation, just as the queens' had done, until they disappeared altogether. You can still see the stump of the wings on the workers."

Then he gathered up a handful to show me.

"Have a care, spirit; they will sting you," I cried, forgetting he was only a phantom.

"But they have no stings now, either. They bred off the stings also—those mighty Solons of the 19th, 20th, and 21st centuries, who thought they knew it all."

"Phantom of the present and the past, forgive me if I seem to doubt you. Let me see a large apiary."

The same finger beckoned me away.

"Come and I will show you the largest apiary on the Pacific Coast."

We stood among 27 small boxes, exactly like

the others. They were inclosed also by a high fence — all iron — with murderous spikes all along the top of it.

"Spirit," I cried, "why all these measures for defense? Has the world become so wicked in the 30th century that you have to inclose these bees within an iron wall?"

"Honey is very sweet, both to the big and the little boy. The bees can neither fly nor sting, and the boys can carry off the boxes under their arms, and hardly be noticed."

"How does all this transformation affect the honey crop? What is your average product from a single hive, of comb honey?"

"In a first-rate year we can sometimes get 20 quarter-pound sections; but it must be a real good year."

"Have sections become so small as that? Why, that's only five pounds of honey. I have produced from a single colony more than 300 pounds."

"It is not five pounds, for the $\frac{1}{4}$ -pound section holds only about three ounces of honey. But there is a great difference in circumstances between your days and now. Then, bees flew at least 60 miles an hour; now, they have to crawl to the flowers. Then, the queen had the great incentive of leading out a swarm; it was her picnic, her gala day, her triumph in motherhood, and she did her level best to bring it about. She often laid 3000 eggs a day; but now 25 eggs per day is the most that any apistar has reported for many hundreds of years."

"Then as they don't swarm you increase by dividing."

"Yes; by feeding the whole summer you can obtain one comb from each hive per month, for the queen seems to know just how many bees she wants for that hive, and she will provide no more; so increase costs a large outlay of money."

"Spirit, tell me this: Why did they wish for bees without wings?"

"They didn't wish it. It was an unforeseen result of breeding off the queens' wings. Like produces like; and a queen *without wings* could not produce bees *with wings*."

"But, spirit," I cried; as a new thought struck me, "can't you tell them how to breed back again to the bees we had in 1896?"

"No, it is not for me to interfere. Men were not satisfied with the bees as the great Creator had given them to us—the only creature in all his wide creation that literally worked itself to death. Oh, no! the bee as it was wouldn't do. They must go to work to improve (?) it—not only by curtailing its beautiful proportions, but by destroying its natural instincts also."

"Spirit, phantom of the past and the present, teach me—"

But he was gone, and I was still looking at the red coals running into fantastic shapes as they broke and fell apart.



BEE-KEEPING IN SOUTH AFRICA.

HOW EXTRACTED AND COMB HONEY SELL FOR
60 CTS. PER POUND; THE WONDERS OF
THIS LAND AS A BEE-COUNTRY.

By Francois J. Haarhof.

I have been an interested reader of GLEANINGS for some time now; and being a young but enthusiastic bee-keeper I thought it might be interesting to your American readers to hear a little about bee-keeping in this famous land of gold (and land of grabbing, raiding millionaires *a la Rhodes*).

Little is known or practiced in this country, of modern bee-keeping. Every careful householder, or farmer, has his one, two, or three bee-hives, but nearly always box hives. Little is known of the movable-frame hive. In the Cape Colony one or two bee-keepers have begun a small bee-farm on modern principles; and even here lately we have progressed sufficiently to have a few progressive bee-keepers having from one to half a dozen movable-frame hives. Our surveyor-general, Mr. Von Weilhjoh, at one time had as many as forty hives in a bee-house; but having lately broken up his farm, this apiary has been spread far and wide, and now no larger apiary exists in this country (to my knowledge) than that of Dr. Stroud, of Pretoria, who owns some twenty or thirty hives.

Why such a state? Not because it does not pay, I can assure you; but because of there being so many other occupations that pay as well, partly, and partly because so little is known of modern bee-keeping in this country. But the example of the few is doing good work among our farmers, who are ever willing to learn any new and progressive mode of farming; and your make of hives and foundation is being sold by the leading firm in town, to a great extent.

To show how well bee-keeping pays, I must tell you first of our honey-season. Peach-blossom, which is very profuse, and productive of honey, begins toward the end of August; and from that time our honey season continues, off and on, more or less plentifully, seasons of severe drouth excepted, until the beginning or middle of May; succeeded by two or three months of mild sunny winter, during which the bees work and continue brood-rearing unceasingly—sufficiently so to keep them strong and healthy, and well supplied with food, until winter is ended.

To show you how mild our winter is, two winters ago I caught and hived a small swarm (about a quart) in June, our mid-winter month, and with a little feeding I started them to rearing brood, after which they were left to their

own resources. The result was, a fine strong swarm in mid-summer, yielding a good amount of surplus honey. Easy enough keeping bees, is it not? Now as to the price obtainable for honey:

Strange as it may be, our woods and hills are simply swarming with bees, and yet honey brings fancy prices. I have now six colonies in full working order, and every section obtained I have sold for from two shillings to two shillings and six pence. Now, what do you Americans think of that—60 cents for a section of honey weighing from 12 to 14 oz.? I fancy I hear some bee-farmer in Ohio or California smacking his lips at such a price for comb honey. Now, I can tell you one better than that—true, mind you—(we spin no yarns in this country, except the jingo newspapers). I took out a dozen brood-frames, on the outside edge of my hives, as my bees were rather too well supplied in the brood-nest, considering the mild winter; then I had 8 frames of honey which I had placed on a hive in a super box, making 20 L. frames of solid honey. These I extracted with a Novice extractor, poured all into 1-lb. jars, and sold each jar for from 2 shillings 6 pence to 3 shillings each; that is 60 to 72 cts. per lb. for extracted honey. Good, hey?

Now let me say right here, it will do no good for any of your people taking the notion to send a few tons of honey to this country and spoiling my market — no good whatever. We have any amount of imported honey here—glucose, rather, or, at least, the public believe it to be glucose, or some imitation of honey. In fact, we have a patriotic public (a well-known fact), who believe in the purity of local production only.

I intend building a bee-house soon, and hope to be able to bring the price of honey down here by next year, by means of a plentiful supply of good local honey. The demand is so keen at present at above prices that I am almost tempted to take more honey out of the brood-nest; but better judgment has prevailed.

Should you wish to know more of our bee world, races of bees, sources of honey, mode of working, etc., I should be pleased to supplement this letter by a later one on the same subject.

Your home and health articles in GLEANINGS are most interesting as well as useful and instructive. Keep them going.

Pretoria, South African Republic, June 12.

THE HIVE QUESTION.

NOT LARGE OR SMALL HIVES, BUT MEDIUM.

By John G. Corey.

Mr. Root:—Apparently all the changes have been rung on this question that are possible; but somehow I have a desire to have my say as

well as the rest of the bee-keepers scattered widely over the North American continent. With me my personal experience has been varied, extending over 35 years, and with a great variety of form and size of hives. In 1859 my first colony of bees was in a movable-comb hive 12x12x12 inside measure, containing 8 frames. I got a copy of Langstroth's book, first edition; at the same time I got my first colony of bees, and, after reading that book, I decided to change my hive and frame to conform to Mr. Langstroth's ideas, as he was the first author I had read on bee-keeping, who had had any practical experience with the handling of bees in movable-comb hives up to that date. I never owned more than one hive of the American pattern, and I used that one until I was fully satisfied.

I continued using the ten-frame L. hive until 1873, when Mr. R. Wilkin, a well-known bee-keeper, came to Ventura Co. from Ohio, bringing with him a plain style of hive holding 8 frames, L. size, also something like 100 eight-frame portico hives, made after the L. pattern, leaving off the cap, and using a plain super. These latter hives were bought of Adam Grimm, of Jefferson, Wis.; and as Mr. G. at that time was one of the foremost bee-keepers of the Northwest I decided to make my next lot of hives eight-frame, and did so; but after using them two or three years I found out my mistake. I had 200 of these eight-frame hives; but bees being in demand I soon sold all my eight-frame hives stocked with bees to parties coming into the county and commencing in the business.

In 1878, being in need of more hives, I conferred with R. Touchton, who was with me that year. He had watched with some interest the working of the two styles of hives, and we agreed that the eight-frame hive was too small; and as the hive 14 inches wide holding the 10 frames had generally but 9 combs that were perfect, almost every hive contained at least one imperfect comb; hence we decided to make the hive 13 $\frac{1}{4}$ wide, and use 9 frames in the base and 8 in the super, which we did; and that being a good year, we gave the new hive a thorough test, and decided in its favor. Only one change has ever been made in all these years, and that was made the next year—altering the entrance to full width of the hive, and regulating the size of the same with movable blocks. I called the new hive the "Ventura Standard." I never made any hives for sale, and never expect to; and this sketch is written only to tell the struggling bee-keeper how we arrive at conclusions. I have bought bees in hives of almost every size and shape, and made piles of kindling-wood of them after transferring them into our plain, simple, and convenient hive; but so far I never sold a colony of bees to any one, to my knowledge, who trans-

ferred them from my hive to any new-fangled one.

In working my bees I find from 5 to 10 per cent of the colonies that fill up their supers far in advance of the average of my apiary. In cases of this kind I use these strong colonies to draw a few frames of foundation, or give them an extra super, never allowing any loafing except in the evening, after sunset. In the morning, if found clustered outside the hive, I give them ventilation or an extra super, and force them to go to work.

During the season of 1879 I had some limited experience with about 20 hives made to hold 16 frames, one story only. The bees did fully as well in these hives, the difference being only in the wide distribution of the brood, making it difficult to withdraw any great number of combs at a time for extracting, as the brood occupied only the central portion of the combs, and generally used up 11 to 12 combs. We were at that time very cautious about extracting combs containing brood, even if it was all sealed.

The great amount of fine quality of wide lumber required to make the tops and bottoms of these wide hives over the ordinary hive, together with the impossibility of being handled when full by one person, led to their abandonment at the end of that season. They were afterward partitioned off into four compartments, and used to rise queens in. This hive was called the Erie, after the celebrated New York & Erie R. R.

Not claiming to be one of the new lights, I can not expect to influence Mr. Poppleton to reduce the width of his hive, nor Mr. Dadant to reduce the size of his, and I have no desire to do so; neither do I expect to dissuade Dr. Miller from monkeying with V-shaped self-spacers; but I will say to Miss Emma Wilson, that I agree with her about heavy hives, and for that reason recommend my style of hive to any one who wishes to occupy a middle ground between the eight and ten frame advocates. We select our lumber with great care, rejecting all heavy hard boards, taking the best clear stuff always; have it planed on both sides, and sawed accurately at a planing-mill. The material for a hive, super, and frames, costs us less than \$1.00, estimating lumber at \$35.00 per 1000 feet. We nail them ourselves, and paint them with at least two coats, color pure white.

Santa Paula, Cal., March 6.

HOW TO AVOID BEING STUNG SO MUCH.

THE CONSEQUENCE OF TOO MANY STINGS; WEARING VEILS.

By P. D. Wine.

Mr. Root:—Why do bees sting some people more than others? Some tell me they can hive

a swarm of bees, take away honey, transfer, or do any other thing necessary, and never use a veil or gloves, and never get stung. Now, I get stung every time I work with them, even with good veil and gloves on. This morning I looked into a hive having a new swarm in it, and I received six stings before I could quietly replace the cover. Is there any way to avoid stings? I am not afraid of the bees, and like to work with them; but I should prefer not to get stung every time I go near them.

Aurelia, Ia., July 25.

I know there is a sort of current impression, to the effect, that bees will sting some people more than others. While this is true, it is not because they are able to recognize any peculiar physical condition or difference, nor is it because one person smells to the bees differently from another. It is because they notice a difference in behavior in different persons. For instance, Mr. A has made a close study of the habits of bees, and particularly of the causes that induce them to sting. He recognizes that quick motions, under some circumstances, are quite liable to arouse the bees and make them sting very badly. There are certain things he can do with impunity, and others he can not; or, perhaps, we had better put it this way: He can do anything with bees he desires; but if he works in a certain peculiar way he will get stung badly; but if his motions are regulated to their whims, he will get along with few or perhaps no stings. Another man, Mr. B, is not afraid of bees, and does not care much whether he is stung or not. Perhaps he thinks a veil useless, and does not wear one; or may be he rips the cover off with a yank. He is clumsy in his motions. One bee stings him. He draws his hand back quickly, and receives half a dozen more. He does not know the importance of doing all things decently and in order. Smoker? Oh, yes! he has one; but he uses it at the wrong time, and does not keep it on hand ready to quell any disturbance that is likely to arise. Mr. A, on the contrary, observes that bees are crosser on some days than on some others; but if he must handle them on an "off day"** he will first make sure that his smoker is in good order, and ready to give off a good volume of smoke. He will blow a little of it in at the entrance, and then pry the cover up a little very gently. As he does so he will send a stream of smoke into the crack made by the putty-knife or screw-driver. This drives down the guards, and then the crack is made a little wider, and more smoke is then driven in, when the cover is removed. If the bees show a quick nervous movement, standing up high on their legs, bobbing their bodies quickly one way and then the other, he gives them a few more light whiffs of smoke until they are subdued. With a screw-driver he loosens the frames, holding the smoker in his hand. Just as soon as the bees stick their heads up, ready to show fight, he drives them back again, and then very cautiously and deliberately removes the first frame. His movements from now on are very deliberate; and occasionally when the bees are a little obstreperous he gives them another whiff of smoke. Only a very little is required—just sufficient to let them know that he is master, and that they must let him entirely alone.

This summer I worked with the bees nearly a week before I received a single sting, and yet

*A cool day after a rain; a day when the bees have been robbing, or a day following a sudden stoppage of the honey-flow.

one of the boys who worked near me at the time, doing the same work, was stung anywhere from three to five times a day. Perhaps some may feel that these slow movements waste a good deal of time; but I find that I can really do more work in a day by closely and carefully watching any disposition on the part of the bees to resent my intrusion. Right here rests the whole secret. To one who is accustomed to handling bees there is a certain indescribable action on their part that shows when they are ready to sting. A little smoke at the right time takes the "fight" all out of them.

I do not believe it is good policy for one who handles bees very much to get stung a great many times, and one should be careful to avoid every sting as much as possible. In the summer, when the bees are working in the fields, one or two stings perhaps in the whole month would be all that I should get, *providing* there were nothing but Italians from imported stock, or of that persuasion; and how I avoid the stings is simply by following the plan laid down for Mr. A.

In this connection it might be well to state that one who makes a business of keeping bees is liable in years to come to experience some bad effects from too much of the *apis-mellifica* poison being injected into his system. The Rev. L. L. Langstroth, James Heddon, and others in later years experienced some inconvenience from what they ascribed to the presence of too much bee-sting poison in the system.

In regard to dispensing with a veil—yes, this can be done, but it doesn't pay. I have seen some of these same chaps boast of how they did not need any face protection; yet I have seen them waste valuable time in stopping to put the hands up to the face, or plunge the head in a clump of bushes, in ignoble retreat.—ED.]

OPENING UP NEW MARKETS FOR OUR SUR- PLUS.

A PRACTICAL WAY SUGGESTED.

By F. A. Snell.

In years past there has been much territory in our country where bees have not been kept—some parts, at least, of which are not adapted to the keeping of bees. I have tried and succeeded very well in making sales in such territory to some extent, through friends located there. In doing so the benefit would be two-fold in seasons when our crops have been good here, as then all bee-keepers have a good crop, and there is much to be sold; and if too much honey is thrown on our home or any other one market the result is a demoralized one, and low prices obtained for our honey.

The other benefit results in having an outlet for the large crop when it comes, and at good prices, besides supplying the people at distant points with nature's purest and healthiest sweet-honey.

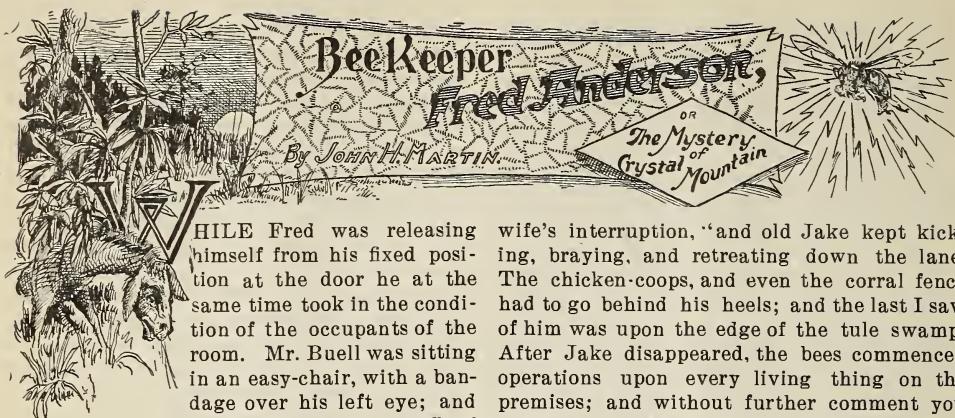
In 1886 our crop of honey was a good one in quantity and quality. Having friends in the unoccupied fields I wrote them as to selling for me, or buying and selling it to grocers or consumers. I thus secured two good markets at good distributing-points. At one of these points my friends sold nearly 2000 lbs. of comb

and extracted honey for me at satisfactory prices. At the other good point the second friend did nearly as well. Others with whom I thus arranged disposed of from 100 to 500 lbs., buying outright from me. The comb honey netted me about 15½ cts., and the extracted 9 cts., or about that. Each year since, I have sold more or less at the distant points. The only drawback has been our extremely poor seasons for the last six years, during which time I have been able to ship only small lots to the distant points, owing partially to the urgent home demand for our honey. This season thus far has been a poor one with us, and we are in much need of rain at present. Bee-keepers who make their bees their leading business should see well to it that too much honey is not forced on their home markets or the large city markets, but try to keep posted as to the honey crop, and select the not overcrowded points to sell their products in so far as is possible, using no deception in crating. Have the sections cleaned of propolis, and as little soiled as can be; thus the best prices will be secured, which are too low, like all products of labor.

At this time, and for several years past, whether the crops were light or heavy, the tendency has been gradually but surely downward, until very little or no profit is left to the producer, and sometimes the produce is sold at less than the actual cost of producing. The producer of honey, at least, should come as near to the consumer as possible, which is secured to quite an extent by selling, at points as above indicated, in vacant territory; for, were these remote points reached by our large city dealers, much expense would be added; viz., freight to city markets from the country producer hundreds of miles away, perhaps; cost of commission and transportation from city to the unoccupied markets, which would make a difference of from 2½ to 5 cts. per pound at the final selling-point, which would of necessity compel the dealer there to add this amount to the selling price; and the loss from breakage is much increased at times, all of which will add to the retail price unless the grocer loses, in which case less honey will be consumed than if sold at a lower figure, and the grocer less inclined to buy; when, if sent by the producer to the point of consumption, all parties would be helped, and far more honey used at such points; and as the extent of our country is immense, on the whole the results of bringing the producer and consumer near each other would be great, and the greatest amount of honey possible sold, resulting in a benefit to all parties interested; viz., the bee-keeper, dealer, and consumer. I think too much thought along this line can not be bestowed.

Later.—We are now having a delightful rain, which is much appreciated.

Milledgeville, Ill.



WHILE Fred was releasing himself from his fixed position at the door he at the same time took in the condition of the occupants of the room. Mr. Buell was sitting in an easy-chair, with a bandage over his left eye; and as Fred caught a sniff of hartshorn, and began to sneeze, Mrs. Buell said in an excited manner, "Just see, Fred Anderson, what those pesky bees you left here yesterday have been doing. Mr. Buell is stung so dangerously that his eye is swelled shut-shut, Mr. Anderson. Poor Alfaretta is also stung on the head, and has gone to bed weeping. And Fido, the dear little thing, I fear is dead under the barn—dead, Mr. Anderson; two hen-coops demolished, the chickens killed, and the corral near the barn ruined, Mr. Anderson, ruined."

Fred was amazed at so much damage being done by one colony of bees; and while he was trying to collect his wits, and say something, Mr. Buell laughed kindly, and said, "There, there, dear wife, don't get so excited. Fred will think those bees were equal to a cyclone."

"Cyclone!" said Mrs. Buell; "why, Clarence, they were worse—"

"You see, Fred," said Mr. Buell, interrupting his wife, "it all happened after this manner: Early in the morning I picketed old Jake on a corner of the alfalfa-field. While we were eating breakfast he slipped his rope, and, like all mules, started out upon an exploring-tour. I had just reclined in the hammock when I saw him approach the bee-hive. I have no doubt his mule sense led him to believe that he had found the box in which I keep the barley. I hastened toward him and shouted, but it was too late. With a comical leer at me and an expressive twisting of his ears, as much as to say, 'I am managing this barley-box,' he gave his nose a gyratory movement on the cover, and it went off with a thud. His nose then went gyrating among the frames; but, let me tell you, it was as quickly withdrawn, and with a snort and a squeal he whirled around and kicked that hive clear over the hedge. The pieces went flying through the air as though there had been an explosion."

"Cyclone," said Mrs. Buell.

"The whole force of bees were now getting in their work," said Mr. Buell, not noticing his

wife's interruption, "and old Jake kept kicking, braying, and retreating down the lane. The chicken-coops, and even the corral fence had to go behind his heels; and the last I saw of him was upon the edge of the tule swamp. After Jake disappeared, the bees commenced operations upon every living thing on the premises; and without further comment you see what the effect has been upon me."

"Well, I declare!" said Fred, with much feeling; "in all of my experience with bees I never heard of one colony causing so much damage. Indeed, I am sorry I left them here. It is too bad, anyway;" and Fred showed real anxiety.

"Now, see here, Fred," said Mr. Buell, as he arose and walked the room, "I do not wish you to take any of the blame. I wanted the bees; and, though we have had a rough beginning with them, I shall not give up trying to manage them. If you can not save any thing out of that hive, I want another; and I tell you, Fred, I am going to stick to the bees until I know how to conquer and manage them."

Fred arose, and with animation said, "Allow me to congratulate you, Mr. Buell, upon your determination. I will give you all of the aid I possibly can."

"Clarence, are you really beside yourself?" said Mrs. Buell, in a vexed, complaining voice; "must Alfaretta and I be shut in the house all summer just by a few bees, cruel bees, mean bees? I tell you, Mr. Buell, I shall not submit to it;" and Mrs. Buell fell to sobbing hysterically.

While Mr. Buell proceeded, in the kindest of words, to allay the fears of his wife, Fred hastened out of the house, with the remark that he would try to set things to rights. "I declare," said he, in an undertone to himself, as he went into the shed to get some sacking with which to make a smudge, "I really believe Mrs. Buell is troubled with what Matt Hogan terms 'mortal aberration.'"

Fred found only the extracting-super kicked off, and that was surely ruined. There was but a small amount of bees or honey in the super, and the colony proper, or the brood-chamber, was not injured. With the smudge in hand, the cover was replaced and the colony soon regained its normal condition.

The chicken-coops were next righted and repaired; and the chickens, instead of being all killed, were coming from their hiding in the

weeds, not much the worse for their scare; and even the corral fence wa's not damaged to a great extent. Fido, the supposed defunct dog, also came from his hiding, and received a caress from Fred with evident cheerfulness. Fred, thinking of Mrs. Buell's exaggerated idea of the affair, exclaimed aloud, "Mintal aberration!"

"What's that?" said Mr. Buell, who had silently come close to Fred.

"Eh—er—wh—what's that? Oh! you scared me," said Fred, as he regained his composure. "I—"

"Yes," said Mr. Buell, "I should think Jake did have a 'mintal aberration.' Ha, ha! you ought to have seen him, to realize the affair to the fullest extent."

"That's so," said Fred, with much gusto, glad to have his unguarded remark palmed off on to old Jake. "He must have appeared like a doubled and twisted *syanastacutus* going through the air."

Mr. Buell looked at Fred soberly a few moments and then exclaimed, "Fred, you are joking. I have made a study of paleontology, and there has never been such a prehistoric subject discovered."

"Well, now," said Fred, laughing, "I should think there is such a subject," as he pointed to old Jake, just emerging from the tule swamp, well plastered with mud.

With a few jovial remarks in relation to old Jake and his new name, Mr. Buell again put him at the end of the picket rope, where he seemed none the worse for his experience except in appearance.

Fred's offhand and rapid way of righting things, and Mr. Buell's kind treatment, diminished Mrs. Buell's fears; and when they returned to the house she had ventured to open a window and door: and when Mr. Buell again reiterated his determination to master the bees, Mrs. Buell looked upon him as a very hero. "But," said she, suddenly turning, "Fred Anderson, I should think the bees would sting you to death. I am sure if one should sting me I should not get over it in a week."

Fred told her that he had not the least fear of stings, and assured her that Mr. Buell would soon learn to manage them as easily as he could. "But before he becomes an expert he must learn to take many stings. For instance, I have been stung at the rate of forty times a minute."

"Forty times a minute!" exclaimed both Mr. and Mrs. Buell. "Why, Fred Anderson! what are you made of—cast iron?" said Mr. Buell. "Have you no nerves?" quoth Mrs. Buell.

"Oh! my friends," said Fred, "it is merely a case of getting the system thoroughly inoculated with bee poison; or, as a friend of mine termed it, getting pickled. The longer one manages bees the more pickled he becomes, until at length he cares not so much for a bee-sting as he does for a mosquito-bite."

"You almost discourage me," said Mr. Buell; "see my eye after only one sting. My condition would be deplorable if alive after forty stings."

"You will be so careful," said Fred, "in the first stages of your bee management, that you will receive but few stings. It is only after much manipulation of bees that one gets careless, and gets punished for it."

"Yes, Fred, I think I can imagine how that occurs. To illustrate, let me paraphrase Pope:

A bee-hive is a monster so full of stings,
That to leave it we'd get away on wings;
Yet endured so oft, and stung in tender parts,
Charmed, we fain would study all their arts.

The conversation drifted from bees to Pope, and from Pope to good and evil, and finally to the charms of music; and Fred was requested to enliven the house with the guitar and a gospel hymn. He selected "The Lord is our rock; in him we hide, a shelter in a time of storm."

Mr. and Mrs. Buell joined in the chorus; and



"JUST SEE WHAT THOSE PESKY BEES HAVE BEEN DOING!"

as the last refrain died away, an echo, as it seemed, came from the shrubbery near the house:

"Jesus is a rock in a weary land, in a weary land, a shelter in a time of storm."

Mr. and Mrs. Buell gave close and anxious attention.

"Dear Alfaretta," said Mrs. Buell, as she arose and peered from the window. "That is the first time since we came here that she has even tried to sing any thing but her song of the sea. Certainly, Clarence, it is an indication of a change."

"Surely it is," said Mr. Buell, in a hopeful tone; and, stepping to the veranda, he said, "Alfaretta, dear!"

"Yes, papa, here I is;" and she emerged from under an acacia-tree, her face much swollen from the effects of a bee-sting.

"How do you feel, Alfaretta, since your experience with the bees?"

"Why, papa, I feel like an old potato-basket with the bottom out and handles off, all crunched, crunched."

Fred had anxiously followed Mr. Buell to the veranda; and now, turning to him, Alfaretta said, "Freddy, see my teeth." The grimace that followed gave Fred a distress in the region of the heart, and he immediately re-entered the house, followed by Mr. Buell.

The moments that followed were moments of silence. Hearts that were hoping for an improvement in the mental condition of the loved one, and anxiously watching all indications of a change, were even more sad when the indications proved to be misleading and false. The spell of silence was soon broken, however, by the well-known song from the shrubbery:

"The night is stormy and dark,
My lover is on the sea," etc.

"O Fred!" said Mr. Buell suddenly. "The episodes of the morning have led me to neglect to inform you that I have heard from Dawson. He is very bad off; has taken to his bed, and is continually raving about McBurger."

"Is that so, Mr. Buell?" asked Fred, anxiously.

"Yes, Fred, it is reliable news, for Sam Splinter came up the river from Dawson's last evening, and told me."

"Oh, dear! oh, dear!" said Fred, in evident distress. "If the man should die I should feel guilty—yes, guilty—for I suppose I am the cause of it all."

"No, Fred, I would not judge you guilty, for you were attending to your own legitimate business. He followed you for an evil purpose; and if he dies, it is only another form of retributive justice, not only for what he meditated at that time, but for past dark deeds. Now, I think, though he is a bad man, and though his wife may not receive us kindly, we can do no better service to-day than to visit those in affliction, and render all possible aid. I propose that we now eat our noonday lunch, and all go down to the Dawson place. What say you, Mrs. Buell?"

"It seems to me it is just what we should do. But, Clarence, your eye and Alfaretta's face are not very presentable."

"I think almost any thing will be presentable at the Dawson ranch," said Mr. Buell. "Etiquette and appearance are not held in high esteem there, as you will probably find out. I take it for granted you will go with us, Fred."

"Of course, Mr. Buell, I am only too anxious to be of service to those people."

"And what say you, Alfaretta?" said Mr. Buell.

Alfaretta held a small walking-stick in her hand, pointing it skyward like a wand, and, looking steadily up, she repeated, with an oscillating movement of her lithe body, and with an increasing intensity,

"Grimalkins, ghosts, grind, grind,
Bedlams and witches, bind, bind;
Hail, blinkers and winkers,
Mourning and croning,
Dawson is dead—dead."

"Dear daughter," said Mr. Buell, with evident pain, "you should not allow such vagaries to enter your head."

"Dead, dead," answered Alfaretta.



SOMETHING FOR "SKYLARK" AND THE READERS OF GLEANINGS.

Question.—Which is right, you or Skylark, as to the number of farms in the United States? Is it possible that there are 3,000,000 more farms in the country now than in 1870?

Answer.—Turning to my dictionary, under "Farm," I find this: "Land owned or occupied by a farmer." Then turning to "Farmer" I find, "A person who owns or occupies land." Then on the wall to my office I find this clipping, which I clipped some time ago from a newspaper and pinned there, and from which I made the statement regarding the number of farms, which appeared in the *Progressive Bee-keeper*, which Skylark takes exception to: "In

1870 there were 3,027,108 farmers who practically owned all the farms in the United States. In 1894 3,031,270 persons owned all the farm land in this nation." To prove himself right, Skylark will have to show that this clipping gives a false statement. Will he undertake to prove that these figures are not approximately correct? Unless he can do this he has no right to sweep me and my "argument into the Pacific." In doing as he did, he only set up a man of straw, and then proceeded to knock it down. Be fair, Skylark, even if you are hiding under a *nom de plume*.

CORPORATION, OR UNITING OF BEE-KEEPERS.

Question.—Why are you opposed to bee-keepers uniting to force up the price of honey? Is not Skylark right in his premises regarding this matter?

Answer.—I am opposed to the uniting of bee-keepers to force up the price of honey, because the *principle* is wrong. It is just this principle which has brought hard times to bee-keepers and to the mass of wealth-producing people. It is on a level with the great combines in this country, which force up prices of coal, oil, etc., to the injury of the masses, and which is condemned by all right-thinking people. Skylark says that my ideas along the line of "loving your neighbor as yourself" "leads to the legitimate conclusion that friend Doolittle should divide his honey equally among his neighbors, giving each one as much as he keeps himself." Exactly; just this. And it also means that each one of those neighbors should give me a part of their wheat, meat, butter, eggs, cotton, wool, etc., so that *all* might live in happiness on the bounties which a loving Father so richly provided for our comfort. The race in life should be equal to all. When I come to exchange my honey for any of the things raised in any agricultural pursuit, I find that the above is very nearly what happens, and I have not heard of any one grumbling because his honey did not buy enough wheat, corn, oats, etc.; but when we come to exchange honey for coal, fare on railroads, interest, taxes, etc., we find that it takes from three to ten times as much of our honey to secure to us the same results as it did in the seventies, and this is why so many articles have appeared of late regarding the low price of honey. And now Skylark proposes to overcome this growling by a combine of honey-producers, so as to force all of our agricultural friends to give us more of their products for ours than they have been doing, which all admit has been about right, in the past.

The papers tell us that there are 35,000,000 people in these United States without homes; that is, they live in homes owned by others; and in the face of this we are told that a honey-trust would be right, to compel these homeless ones to pay to bee-keepers a price

which would grind them down still lower in the scale of society, or go without one of the most delicious sweets God ever gave to man. No, no; we have no business to go into wrongdoing because others do wrong. Besides, if we do we shall be beaten at our own game. Just think for a moment of our trying to beat, or even compete with the great oil monopoly, coal combine, or sugar trust. The distance between us would only grow broader and broader as time went on, while we should entirely take from the mouths of 35,000,000 people the sweet we are so anxious they should have.

Again, we can not combine, as bee-keepers, if we wished to trample the golden rule under our feet. I am in debt for my place, and my honey will just about pay the interest, taxes, etc., and allow my family to live on the bare necessities of life. Interest and taxes are due. Talk about my holding my honey for higher prices, or putting it into the hands of a bee-keepers' exchange! No, I must sell that honey for what it will bring, or have the sheriff sell the place for taxes, or the landlord take it by foreclosure of mortgage, unless Skylark will advance to me on my honey enough for these and my family's living, and do the same for thousands of others. Will Skylark do this? I trow not.

Again, Skylark says, basing his ideas on the teachings of Christ in the New Testament, "In no place do I find it the duty of a merchant, though he be a Christian, to make his business known to a fellow-man who would like hints as to his success so as to put them in practice in the same business. Will Skylark tell us what these words of Christ mean, if they do not mean this? "Give to him that asketh of thee; and from him that would borrow of thee, turn not thou away." "Do good, and lend, hoping for nothing again, and your reward shall be great." "Freely ye have received, freely give." "All ye are brethren." If a man love not his brother whom he hath seen, enough to tell him of his business when he is asked about it, for fear he will enter into competition with him, how can he love God whom he hath not seen? What is the Christian bee-keeper after? As much of this world's goods as he can rob from his brother through a honey combine? If he is, then "Great is your reward in heaven" can not be applicable to him.

If merchants, and most other business men, are like those pictured by Skylark, I am happy to announce that many of our leaders in apiculture are not. Think how freely the managers of GLEANINGS have given us all the little "kinks" in our pursuit in the past; how GLEANINGS prefers the other bee-papers to itself, by retracting any thing said of them which might look as if it wished to place itself above its fellows; how it is willing to give of the knowledge possessed by its managers, on

the principle that the world is broad enough for all, even along the line of the supply business. And what I have said of GLEANINGS and its managers I find equally true of nearly all of the other bee-papers and their managers.

I should like to say many other things regarding the thoughts brought out in Skylark's article in the July 1st number of GLEANINGS, showing how he is wrong in his ideas of over-production; what has been the real cause of the hard times to bee-keepers and in our nation; how I can not afford to attend bee-conventions as I used to, on account of having to pay three times the amount in car fare, when measured in honey, that I did in the seventies, etc.; but space will not permit, neither would all of it be appropriate for a bee-journal. The time has come for deep thought regarding the evils which have crept into our midst, and bee-keepers should lead the way toward reform by "quitting themselves like men," and by taking an advanced position by voice, by ballot, and on the printed page.

[I desire to take no sides in this discussion; but it might be well to state that a newspaper clipping, especially one that is anonymous, is not a reliable or authoritative source of information. In saying this I am not implying that the statement regarding the number of farms is or is not right. As the whole question borders closely on politics, and is out of our legitimate line, the discussion, now that both sides have been represented, should end where it is.—ED.]



BEE - MARTINS; HOW THEY ARE SOMETIMES STUNG IN THE THROAT.

Seeing an article in the *American Bee Journal* about the bee-martin, and chancing a few days later to kill a couple of these birds, I decided to hold a post-mortem examination so as to ascertain what became of the stings. The first bird dissected showed that he had eaten fifteen working bees, two of which had stung him in the throat. The other bird showed that he was more of an expert at swallowing bees; for out of twelve bees he had eaten, not one had stung him.

E. L. ROGERS.

Healdsburg, Cal.

[I have always wondered whether the birds were not stung, and I am not surprised that one at least was paid back for his fun. Another query arises, whether the stings, when received in the throat or mouth, have any bad effect on his birdship.—ED.]

BASSWOOD AN ENTIRE FAILURE—WHY?

Basswood opened June 28, and blossomed more profusely than before in ten years. I was ready with 100 swarms of bees, but not one drop of honey was gathered from it. Bees did not visit the blossoms at all after their opening.

The weather was all that could be asked for; but why it failed to secrete honey I do not know. □Last season, with only an occasional tree blossoming, and that very sparsely, we got a fine crop of honey, and here we are in the midst of the famous great basswood-belt of Wisconsin, obliged to report a failure with every thing apparently favorable. Why is it?

E. A. MORGAN.

Chippewa Falls, Wis., July 11.

WORKING TWO QUEENS IN ONE COLONY—CAN IT BE DONE?

Will you answer through GLEANINGS what would be the result of placing two queens in one hive, with perforated zinc in center, also on top? Would both colonies work together in super?

T. N. BRIGGS.

Marion, Mass., July 30.

[The plan you speak of has been practiced to some extent. In some cases it has seemed to work satisfactorily, making apparently an increase in the strength of the colony, and in the amount of honey secured. It has been tested more fully in England, but of late I have seen but little of it. Under some circumstances it can be made to work satisfactorily—at least quite a few reported having done so in our columns some two years ago.—ED.]

ANOTHER BEE-KEEPERS' CONGRESS CALLED FOR.

During the last few weeks I have been in correspondence with some of the parties connected with the Tennessee Centennial, for the purpose of ascertaining to what extent they are going to encourage an apicultural exhibit; and up to this time I am unable to give any thing definite as a result of the correspondence. However, I expect, during the coming week, to know more about what my old home State will do toward recognizing the bee and honey industry in the celebration of her one hundredth anniversary.

□I am well satisfied, though, that there will be sufficient encouragement to call for a general recognition by the bee-keepers of the United States—yes, of the entire world—and the object of this communication is to suggest what I think would be a very interesting and beneficial movement on the part of combined bee-dom. Let's all, with one consent, pick ourselves up and hold a "National Bee-keepers' Congress" at Nashville, some time during the centennial, which opens on the first of May, 1897, and continues six months. There are matters of great importance that could be considered at such a meeting; and taking into consideration the attractions, which will be quite to the advantage of the meeting, I am of the opinion we can, between now and next summer, work up one of the greatest bee-keepers' meetings that was ever held.

Some, who are of a prejudiced turn, may say, "No, our National B. K. Union, or the North

American, will be quite sufficient." (I speak of these two associations because they are the most extensive.) But stop and think a moment. There are thousands of bee-keepers who never attend a convention, save their own local gatherings; and then Nashville, being well located, we could get a good working force from every quarter. Such an assembly could make such demands as would be recognized by almost every State in the Union. We need laws regulating, or, rather stopping, the sale of adulterated honey. We need laws protecting, as far as possible, the honey-producing timbers of our forests, besides many others. The dairy industry is protected by the laws of our land; and why not the honey industry receive the same? Every deep thinking bee-keeper can see what power demands of such an assembly as I suggest would have; and if such be the case, why not join in a national congress, and lock arms from east to west and from north to south, and have our say? Am I right or am I wrong? It is one of the two; and if I am right, I want to see every bee-keeper on the American continent rise and second the motion.

I think I have said enough to open the subject for consideration. Now let us decide what we shall do. If my suggestion is pleasing to the bee-keepers of America, I may have some more to say a little later on.

Beeville, Tex.

J. O. GRIMSLY.

[I am quite in accord with your idea, only it strikes me it would be better to invite the Bee-keepers' Union or the North American to hold its next meeting at Nashville. The last Bee-keepers' Congress was almost a failure so far as attendance was concerned. In all probability the Bee-keepers' Union will take up the work of the old North American and of the Bee-keepers' Congresses that have been held in the past; and it does seem as if the new organization, whatever it shall be, should be the one to meet at Nashville. We are ready to receive suggestions from our readers.—ED.]

NO RAIN AND NO HONEY.

If these everlasting editors of bee-papers don't stop this present state of things I shall certainly be obliged to move to California, or do something else that's worse. The reason I want to go to California is this: Skylark lives there, and misery loves company; and he is mad, for he says so, and so am I. Well, why shouldn't we be mad? Why, it is enough to make any one fairly howl with rage to sit down and read of bees fairly reveling in sweets; glorious outlook; prospects for an immense crop never better, etc., when the fact is that neither Skylark in California nor myself down here in York State have a hand in it at all. Now, may be you editors think we don't know our business; but just give us what rain we need, and see if we can't "whoop it up" as loud as any of you; but while this dry weather

lasts, and I remain in the East, just remember that you all are in a dangerous position, for you see we can just get in a cross-fire on you every time; so, beware, because we don't have to spend much of our time this year, thus far at least, in caring for the immense honey crop. Why, if Skylark and I had to eat all of my surplus ourselves it wouldn't be a big job—no, not even if he didn't eat any, for I could do it myself in a short time. But I have already occupied too much space with this strain: now for facts, which are stubborn things to deal with at times.

The bees came through the winter in extra good condition. My own (122 colonies) came out all in fine order. The weather was warm, and brood-rearing progressed rapidly, so that, by May 1, the hives were just boiling over with bees; but we had no rain to speak of, and no flow of honey to amount to any thing up to the present time, which is just after basswood has dried up. I never saw the blossoms more plentiful on the trees, but too dry to yield any thing scarcely. We still look forward to buckwheat and goldenrod and other fall flowers, which in reality are the main source from which we obtain the greatest amount of our surplus here. I do not think that we have had a rainfall of one inch in all since the snow went off; and to say that the growing crops are suffering badly is putting it very mildly indeed; and unless we get the necessary amount of rain, of course the season here will be a failure complete so far as surplus is concerned. The hay in this vicinity is less than half an average crop, while corn and oats (the latter in particular) are doing finely. Although such experiences are hard to take, yet it has not all been loss, as I have had a chance to experiment and do up a general stock of repairing, etc., which I otherwise would not have had the time to do, as I produce mostly comb honey; and, like other people's bees, mine will swarm at times when honey is coming in with a rush.

T. I. DUGDALE.

West Galway, N. Y., July 18.

[The situation in our vicinity is just the opposite. The farmers have been complaining because of the excess of rains. It rains and it pours, and the ground has been so soaked that harvesting has been done under difficulties. If I am not much mistaken, all the drouth-stricken localities since the date of your letter have been blessed with plenty of rain.—ED.]

BUCKWHEAT—TWO CROPS IN A SEASON.

Buckwheat does very well here, and I will sow more extensively if I can dispose of the crop. I can raise two crops per year here, as I find by trial for two years that early sown does just as well as July sowing. I see no reason why we may not begin to sow in early spring, and continue to sow every month until July or even August, for bee pasture. My early crop filled nicely.

J. S. FOWLER.

Grand View, Tenn.



MORRISON'S NO-DRONE THEORY OF NON-SWARMING.

Some part of friend Morrison's theoretical speech (GLEANINGS, page 526) may be all right; but we must inform him, as well as the bee-keepers of our land, that his theory on non-swarming won't work in this part of the country. We don't wish to be understood as simply taking Mr. Morrison to task—not at all; but we mean to make this paper a medium through which the general bee-keeping interests will have protection; and when any thing is advanced that we are satisfied will not prove for the general public good, we will point it out. When this same theory was put forth by some one, in some of the bee-papers, in the year 1884, we set apart three colonies to test the matter. One Cyprian, one black, and one Italian colony were placed on full sheets of Dadant's foundation, and not allowed to raise a single drone; and just as soon as the conditions were right, here came the swarms just the same; they did not only swarm, but they second-swarmed. In latter years we have further tested this matter; and our experience is that it will not prevent swarming. It might turn out that excessive swarming would be kept down by the no-drone theory, but we doubt it. Bee-keepers that follow out Mr. Morrison's theory, on the non-swarming term, will, in our opinion, lose their time. Mr. Morrison asks the question:

"But what do we wish to copy Nature for? Our entire system of bee culture is the most unnatural thing out. People who wish to follow Nature's way had better let their bees go wild."

—Editorial comment in the *Southland Queen*.

To B. Taylor, largely, are we indebted for the advancement and advocacy of the idea of drawn combs in the comb-honey super. The fact that he had invented and offered to the public a comb-leveler greatly detracted from the rapid embracing of his theory with those to whom he was a stranger, but with those alone. Any one knowing the man must have faith in him and his theories, anyway until the complete explosion of the latter. And, let me whisper, he is now getting old enough to protect his speculations (children of his brain), and not ruthlessly throw them on the market before they can stand alone, straightway to be beheaded. In short, the cunning which cometh alone with years of experience, he posseseth. It has long been a recognized fact that more extracted honey can be produced than comb because of the bees being furnished with drawn combs. With this established, what should have been of easier deduction than that the same convenience would increase the production of comb honey proportionately? Verily, there are three degrees of intelligence—instruction, instinct, and inspiration. In treating of this subject, E. R. Root, in *Gleanings*, has the following:

* * * * *

Away back in the school-readers, a certain young lady graduate, in lauding her educational attainments to the skies, concluded her performance with, "The only wonder is that one head can contain it all." This is the reverse of the position I occupy on this subject. The only wonder, with me, is that we have been so obtuse while these facts glared right before our

very eyes. As the unfinished sections left over would be but a drop in the bucket, the general use of drawn comb in the sections would create a demand in that line; having discovered which, E. R.—rootlike—begins rooting around to fill said want, and tells us, "In the near future, from present indications, a foundation will be made having all walls and bases natural thicknesses, the walls being $\frac{3}{8}$, $\frac{1}{2}$ inch, or deeper." Now, don't all with one accord shout, "Told you so," but do your harvests with a quiet eye, and try experimenting on a small scale and small expense. Remember the lesson of to-day's hard times is, limited expenditure. Haven't we been ridiculously slow in absorbing the principle the comb-leveler proclaimed? But now we are going to make up for lost time in the production of a walled foundation. However, the said foundation will scarcely dim the future prospects of the comb-leveler, as it will pay for itself in enabling us to utilize material at hand. Aside from this consideration, how could you, E. R., make such an assertion, or, rather, prediction? Is it possible you are jealous, and seek to dim the luster of the fame of your dearest friends, Hutchinson and Rambler, both having prophesied that, there being no room or need for improvements in bee-keeping, none need be expected in the near future?—*Somnambulist in Progressive Bee keeper*.



C. J. H., Neb.—We know of no clover that is better for general sowing along the roadsides than alsike. It grows readily, and is ornamental. Sweet clover is also good, but many people do not like the looks of it. Crimson clover, as you suggest, might grow, but it is easily winter-killed, and requires more favoring conditions than alsike. The latter will grow on yellow clay soil, as I know by experience. Next to alsike would be white Dutch.

D. H., Ohio.—There have been various machines devised for evaporating thin honey; and while some few bee-keepers have made them work successfully, and are using them now to a certain extent, the great majority find it cheaper and more satisfactory in every way to let the bees do the evaporating for them. Beginners in any case had better let evaporating-machines alone until they have acquired experience. Under "Extracted Honey," in our A B C of Bee Culture, are described the various machine evaporators. The most common way, however, when the evaporating is done artificially, is to extract the thin honey, or after it is partially ripened, and set it in shallow pans or crocks. Cover each with cheese-cloth tied around at the top, and let them stand in a hot room during the hottest days of summer, between two open windows. Another machine that is sometimes used is the Boardman solar wax-extractor. As to quality, such evaporated honey generally does not equal that ripened by the bees.



THE failure of the California crop of honey, together with the failure in many localities in the East, will tend to make the total crop of honey not as heavy as was first expected. This should have a tendency to hold prices up.

W. Z. HUTCHINSON, in the *Review*, makes the point that "our preferences must be a choice of evils, or faults, rather." This is very true. It is true of nearly every thing we use in the apairy. If we are candid, no hive, no frame, no super, no smoker, no any thing, combines all the good features without any bad ones.

BARTELDES & Co., of Denver, Colo., a firm which sells carloads of our goods, write this in reference to size of hives: "Eight-frame hives seem to be the only kind that are selling. Ten-frame hives are moving very slowly." This is quite a pointer, especially as it comes from a State where large stores would come in play if anywhere.

I NOTICE in an "extra" of the Toronto Saturday *Globe* an interesting article written up by R. McKnight, entitled "Bees and Honey." It is written for the general public, and explains many of the secrets of bee-keeping. It is beautifully illustrated by engravings from photographs taken by Mr. W. Z. Hutchinson, some of which, or at least copies of them, appeared in the *Cosmopolitan*. Such articles as these for the public in papers of general circulation do much good in showing how honey is honestly produced.

WRITING under (or, rather, over) *noms de plume* is getting to be quite the fashion nowadays in the various bee-journals. While we may not like to have these writers hit us occasionally behind their covered-up identities, nevertheless what they say has a sort of free, racy independence (if it doesn't hit us) that is quite refreshing. None write more entertainingly than Somnambulist in the *Progressive Bee-keeper*. He or she (methinks it is *she*) often gives new life and light, when clothed in her language, to an idea that is put forth in another journal.

RAISING QUEENS ON AN ISLAND IN CANADA.

WE learn from the Toronto *Globe* that a party consisting of Mr. Edmund Harris, President Long Point Company; R. F. Holtermann, President Ontario Bee-keepers' Association, and also an officer of the Ontario Agricultural College, and others visited Long Point the other day to inspect it as to the adaptability of the island for bee-keeping. Some forty-five colonies are being kept on the Point by the

company at present as an experiment. Mr. Holtermann thought the place had great natural advantages for bee-keeping, especially after the basswood blossom opened, and suggested that the island had great advantages for the breeding of queens. It is more than likely that Mr. Harris, the President, with his well-known shrewdness and enterprise, will develop large apiaries on the island. The honey, which was sampled by those present, was pronounced first class, and it is the intention to put it on the New York, Boston, and other United States markets.

AMALGAMATION.

I AM afraid that this subject of amalgamation and reorganization will get to be so stale that some of our friends will skip the articles whenever they see this subject referred to in the headlines. But I want to say just one thing more, as the position of GLEANINGS is, perhaps, not clearly understood. It does not care whether the North American is amalgamated with the Union or not; it does not care whether either organization is national or international; but as some of our friends have objected strenuously to amalgamation, it has seemed to me that it would be better to drop that scheme and make the Union such an organization as the great mass of us desire. Again, some object to having the new organization international. Well, then I would make it national, and I am rather inclined to think that the society whose operations are confined to one country would be more easily managed, and could do more good, than one that tries to cover one or more countries and makes a poor fizzle of it after all.

Let us decide on something that will be the most acceptable to the majority. If we go to try to splitting hairs on unimportant details we shall surely get nothing. The Canadians are away ahead of us in that they have a flourishing society almost national in its character, but which really covers Ontario only. Let us on this side of the line have something big enough to cover the United States only, and one that will answer the purpose of the two existing societies. Having two, as we now do, is expensive and unnecessary while it is perfectly evident that one could do the work of the two. Personally I should be glad to see them amalgamated, providing disagreeable complications would not arise. As there is a possibility of that, I say away with amalgamation, and let the Union set about to reorganize itself as soon as it can. If for any reason it seems desirable to continue the North American, let it continue, on the principle of live and let live.

DEAD BROOD—WHAT IS IT? HOW DISTINGUISHED FROM FOUL BROOD.

I HAVE several times referred to a malady or disease that somewhat resembles foul brood, but which lacks two of the important symp-

toms; viz., that it is not ropy, and that there is no appreciable odor of any kind. In most cases it seems to go off of itself; and very seldom does it affect more than two or three colonies in an apiary. I have one instance before me where this dead brood is spreading over the whole yard, and it may be necessary to resort to heroic measures before it can be held in subjection. Samples of the brood have been sent me, and it is neither ropy nor foul—that is, smelling like a cabinet-maker's glue-pot. The sender of this sample of brood tells me that his neighbor has the same thing.

Some speculation has been advanced, to the effect that this dead brood was owing to some sort of poison the bees get. This may or may not be true. I should be inclined to believe that it is some form of disease, and that it is, to a greater or less extent, contagious.

I have seen samples of it in our own yard at various times, but it has invariably gone off of itself, and it rarely affects more than two or three combs in the hive, and only a few scattering cells in each. It has never spread, and comes and goes.

In the case I have just referred to it has gone through the whole apiary. It has weakened the colonies, and the bees appear to be discouraged—so much so that they very soon fall victims to robbers.

I hope some scientist will take hold of this, find the microbe, and name it. In the mean time I trust that our friend, whose name I forbear mentioning, will treat these cases just as if they were cases of real foul brood, and report the result. I hesitate to mention the names of those who have diseases among their bees, without their consent, especially where the disease may be something that may easily be held under control. For instance, when foul brood has once been in an apiary, even though the last vestiges of it have not appeared for years, the mere fact that *it has been in that yard* seems to place a ban upon it for all time in the eyes of the general bee-keeping public.

THE HONEY CROP FOR 1896; PRICES, ETC.; HONEY STATISTICS CALLED FOR.

So far as we can ascertain by correspondence, the honey-flow in the Central and Northern States has been good—much better than for several years back. In the East it is not as good, and in some sections it has been almost a failure. In California there has been little or no honey except in the San Joaquin Valley, as spoken of on page 563 of our previous issue. In a letter, from B. F. Brooks, one of the leading commission men of that State, he says the California crop of honey is almost a failure.

Arkansas reports an entire failure of honey.

The report above is as definite as we can make out up to date from a large number of letters as they have come into our office. To

get at it a little more exactly, I should be obliged if our readers everywhere would send in a postal card, in answer to the following questions:

1. What has been the honey crop in your locality? (Answer by saying good, fair, indifferent, poor, as the case may be.)

2. How do prices on *best qualities* of comb and extracted rule in your locality in a wholesale way?

As it takes much time to sort over all these cards, write no other information on them. For example, one card may be filled out as follows: "1, good; 2, comb, 12@14; extracted, 6@7." Bear in mind that we want your report on the *best qualities*, so far as prices are concerned. It will be easy enough to estimate second qualities if we know what the best are bringing. I hope every one of our readers will help us in getting together this information; and to be of any use it is absolutely necessary that you respond at once. If you put it off, you will forget it. If you will take the pains to answer for your own locality you may help in deciding the very important question what the price ought to be. These replies will be published as soon as received.

In addition to the replies from producers I am calling upon the honey merchants or commission men for their ideas of the season. I have already sent out the following circular letter. As soon as any considerable number of the replies are received they will be set before our readers.

Dear Sir:—Kindly answer by number, as briefly as possible, the following set of questions:

1. What style and size of shipping-case is best suited for your market?

2. What style of package for extracted honey in bulk—that is, whether square cans or barrels and kegs?

3. What weight of sections seems to sell best?

4. What time in the year do you secure the best prices?

5. What effect will the absence of California honey have on the price of Eastern honey?

6. From your receipts so far of honey, how does this season compare with that of last year?

As about 20 other commission men will report on the same set of questions, your reply will necessarily have to be brief, the whole letter not to exceed 200 words. These letters are all to be published in one or two issues of *GLEANINGS*. Kindly attend to this, if possible, by return mail. Your co-operation in this will be appreciated by your brother commission men as well as by the producers. We are sure it will be to your interest as well as to that of honey-producers in general.

Very truly yours,
THE A. J. ROOT CO.

Medina, O., Aug. 4, 1896.

DEATH OF ALLEN PRINGLE.

ON the 22d of July, Mr. Allen Pringle, of Selby, Ont., Canada, after suffering a short illness, died. While not a prolific writer, yet

what Mr. Pringle did say commanded attention. The diction of his articles was beautifully smooth, and there was something in them too that reminded the reader that their author was a scholar of no mean order. A number of years ago, when bee-keepers everywhere were harrassed by the reports that were going the rounds of the daily papers, to the effect that comb honey was manufactured, and filled with glucose, nothing seemed able to stem the tide of it. Editorials in the bee-journals, protesting and denouncing it as untrue, had little or no effect. The "Wiley lie," that gave the start to these reports, appeared originally in the *Popular Science Monthly*; and Mr. Pringle, appreciating the fact that we were fighting through the wrong channels, conceived the idea of refuting the canard right where it started. The result was, he sent an article to that monthly, denying the comb-honey yarn, and explaining how impossible it was to make it. This was given the same prominence as the original Wiley lie, and was subsequently copied widely by the general press. How much effect it had in stopping the course of this famous comb-honey canard it would be impossible to estimate at the present time.

TAKING OFF HONEY AT THE BASSWOOD YARD;
THE GREAT CONVENIENCE AND ADVANTAGE OF BEE-ESCAPES.

As I have before explained, I usually have the care of this yard myself, going down on my wheel once or twice a week, as circumstances may require. Early or later in the season my visits do not, perhaps, aggregate more than once a month. But as the yard is only about two miles from our factory, by the road, it takes but a few minutes, comparatively, to go to it on the bicycle.

In taking off honey it has usually been my plan to go down a day in advance and put in bee-escapes. At our next visit our teamster starts with a wagon ten or fifteen minutes in advance of me, when I mount the wheel and usually arrive about the time he does. All we have to do is to pull off the supers that are on top of the bee-escapes and set them in the wagon, without any shaking or smoking.

This year circumstances caused us to vary the program a little. Being a little crowded with work I sent one of the boys down with the wagon to take off the honey; but as the bees were so "awful cross" that day he could do nothing with them. But he managed to slip bee-escapes under a few of the supers. On his return he reported that thieves had already been in the apiary; but, fortunately, they had not appropriated more than one section out of a super. I concluded, however, it was not wise to wait any longer, and accordingly our teamster and I made arrangements to meet at the yard. Arriving there I proceeded to take off the supers that were on top of the bee-escapes. So far all

was smooth sailing, with the exception that one Porter escape was clogged with a couple of dead bees, and, as a consequence, the super was nearly full of bees that could not get out; but in every other case the Porters did nice clean work. But, unfortunately, the majority of supers had no bee-escape under them; and as I did not like to have the wagon leave without taking them I decided to go at it in the "good old-fashioned way" — smoke, brush, and shake the bees out. The Cornell smoker was fired up; and as I pulled the cover off from the first one I proceeded to smoke the bees down as much as possible into the brood-nest. This done, the super was pried off, and then I gave that super such a shaking as it never received before; but, of course, it was impossible to get all the bees out. Each super containing honey, and which I desired to remove, was treated in a like manner until all were off. In the mean time they had been placed, as fast as they had been taken off, into the wagon, and covered with bee-escapes. A few bees crawled, but still there were a good many left, and I finally decided we would take the supers home as they were, setting them in the home yard with bee-escapes on top, and letting the few straggling bees fly home as best they might among strangers.

Well, when I got through shaking the last super I was about as tired as I ever was before in all my life after two hours' work. I knew my hands hurt me while I was shaking, but that made no difference. As I looked inside of the palms I found nine blisters as the result of my vigorous shaking; and sweat? why, it just streamed from every pore. I made up my mind that that would be the last time I would ever attempt to get bees out of supers in the "good old-fashioned way"; that hereafter, thieves or no thieves, the bee-escape would be used.

The saving in time, the saving of blisters, and the saving of strength, to say nothing of the cruelty of using such a large quantity of smoke for driving the bees down, and the uncapping of the cells, makes the bee-escape method of removing honey *so far ahead* of the "good old way" that it seems to me any bee-keeper who thinks he can not afford to, or won't, use it is—well, I was going to say a fool; but I can hardly say that, because I know there are some very good bee-keepers who don't use an escape, and they are no fools either; but if they won't even try an escape, they are missing one of the greatest conveniences that modern bee-keeping affords.

INDEXES.

A CORRESPONDENT suggests that there is room for improvement in the indexing of the *American Bee Journal*. I have consulted the files of that periodical not a little, and rarely have trouble in finding what I want. If I could feel that our index was always as good I should feel satisfied.

OUR HOMES.

And it shall come to pass, if thou shalt harken diligently unto the voice of the Lord thy God, to observe and do all his commandments which I command thee this day, that the Lord thy God will set thee on high above all nations of the earth; and all these blessings shall come on thee, and overtake thee, if thou shalt harken unto the voice of the Lord thy God.—DEUT. 28:1 2.

We are all of us more or less inclined to forget such promises as are to be found in the Bible like our text above. It does us good—at least it does *me* good—to read these promises over and over; and, my good friend, whenever you have time, say next Sunday afternoon, after you get home from church, I believe it will do *you* good to read that whole chapter—the 28th of Deuteronomy. How nicely the third verse comes in—“Blessed shalt thou be in the city, and blessed shalt thou be in the field!” This last verse tells us very plainly that a man may serve God in the city as well as in the country. The only important thing is, that in either case we should be hearkening diligently to the voice of God. A few days ago I told our people that I must make a trip to Lancaster, Fairfield Co., O. When some one asked what I was going there for I replied that God was calling me there. Well, how did I know that God was calling me there? how did he call? He called in this way: Near the city of Lancaster there is a campground of some note. If I am correct, it is held by the Methodists, something on the line of the campgrounds at Lakeside, which I have once or twice described. The principal reason why I felt called to go there was that, on the 30th and 31st of July, the Anti-saloon League of the State of Ohio held a meeting. The first meeting was to be held on Thursday evening, and it was to be a meeting of the Board of Trustees. As I am one of said board, naturally I was expected to be present. This Anti-saloon League is a league for the defense and protection of the boys of Ohio. Fairfield Co. is in a part of Ohio where I am comparatively little acquainted; and as I grow older I find that I feel interested more and more in every thing pertaining to our beautiful State, and especially in matters pertaining to the education and general welfare of our children.

In order to reach Lancaster by a short cut I found it expedient to ride 22 miles on my wheel. This wheelride would come about in the middle of the trip. I left the train and took my wheel at New Philadelphia a little after four. I expected the roads to be bad in some places, on account of the recent rains; and I was not disappointed in this respect. Through some of the low grounds where the roads had been recently flooded, I had to walk, and sometimes carry my wheel; but when I got up on to higher ground, on the beautiful graveled road that follows along the old Ohio canal, the wheeling was beautiful, and I praised God while my wheel carried me almost noiselessly through village after village.

At one point I was interested and amused by seeing a little tent put up in a vacant lot. On it was painted in boyish letters, “Circus. Admittance 5 and 10 cts.” A little further on I met a boy dressed as a clown, riding on a queer little cart or chariot, inviting people right and left to turn out and see the boys’ circus. As I took in the whole situation I felt that I would give more to attend that boys’ circus, ever so much more, than the big circuses, providing, of course, there were nothing vicious or bad about it. And I fell to wondering whether I had not

been objecting too vehemently against circuses; and then I felt a wish that, if the thing were possible, there might be a circus to entertain our children, divested of its sinful features. This has often been discussed, and I have been told the experiment has been tried, but it does not pay. A few good people would give their patronage, but we are told on good authority that neither a circus nor a theater would pay expenses unless it catered to the popular demand for something that ministers to the wants of a corrupted and vicious heart. May God help not only our children but the parents as well in this matter of discriminating between innocent and pernicious amusements.

The sun was going down, and I felt anxious. The tinkle of a cycle-bell made me look around, when I saw that two boys were following me. They slackened up their pace to agree with mine, and we had a pleasant chat by the way. I had been afraid that rain would interfere with my meeting my appointment; and when it began to sprinkle we all began to quicken our speed. To add to our perplexity, the canal had got over its banks, and flooded the road for a little way. Even though it rained, there was no other way than to wade through the water, carrying our wheels and shoes and stockings. I expected to stop over night at Newcomerstown, with the friends who were pictured on page 544; but the rain and the darkness together, with the fatigue of going over rough roads, obliged me to stop with my boyish comrades at the pleasant town of Port Washington. The evening was exceedingly warm, and the people seemed to have gathered mostly on the lawns in front of their homes—that is, after the little shower had slackened up. They were nice-looking people; the homes were neat and tidy; the beautiful lawns in front, that reached clear down to the street, have a very pretty effect indeed; and I made up my mind that the people of Port Washington must be temperate and God-fearing. The words of our text are true, dear reader. There can be no real comfort and enjoyment and neatness and thrift without godliness.

I was warmly welcomed next morning by friend Nicodemus and his family. In fact, they had watched and waited the night before, and had kept a lantern burning out on a post, so that I might find their house with but little trouble, if I came in after dark. Newcomerstown, like other towns in that vicinity, is sadly in need of thorough and efficient temperance work; and while I write, our Anti-saloon League is, if I am correct, carrying on a crusade in their midst.

I reached Lancaster in due time, and it was almost a reunion to shake hands once more with my comrades in the crusade. Our Board of Trustees does not include a very large number, it is true; but I assure you it was a rare pleasure to meet with the good and pure men of the State of Ohio, who feel as I do, that God calls them to thus meet twice a year to consider the problems that lie before us. One of our number was the author of some of our valuable schoolbooks; and, dear reader it is not only the churches of Ohio that are working and praying for the abolition of the saloon system, but I believe our *teachers*, if not *all* of the pupils, are also hungering and thirsting for the time when saloons shall be gone. The church and the saloon can not flourish together. They are mutually antagonistic in every way. When I say this I recognize that among the readers of GLEANINGS are not only many who patronize the saloon, but there are also some saloon-keepers; but, dear brothers, please remember that it is not the *men* so much as it is the *business*

that we are fighting. One of the speakers made the remark that our churches, Sunday-schools, and Endeavor societies, and other religious organizations, could not thrive and prosper if they confined their work *solely* to "peace on earth, good will to men." In olden times there were battles to fight, and the *Christian* was by no means exempt from duty of this kind. Watts, in one of his old hymns, says:

Are there no foes for me to face?
Must I not stem the flood?
Is this vile world a friend to grace,
To help me on to God?

Sure I must fight if I would reign,
Increase my courage, Lord:
I'll bear the toil, endure the pain,
Supported by thy word.

And it is just as true to day as it was then. The church or the Endeavor society that sees no foes to fight can not very long amount to much. A visit to almost any of our towns in Southern Ohio will show us the foe.

The Ohio Anti-saloon League has collected and expended during the year, in round numbers, \$25,000. I was greatly interested in the way the money had been used, and so I asked some questions. I am sure it has been well invested. According to my judgment the salaries paid are very fair and proper for the amount of service rendered. I do not know but some of the good brethren thought I was needlessly inquisitive; but as I have been frequently asked what they did with the money, I wanted to be able to answer understandingly. Every county in our State has made some contribution; but from some the amount has been very small. Quite a large number of counties have contributed from \$100 to \$500; but the greater part have given less than \$100.

May I tell you briefly what our League has accomplished? Well, we have held our ground and done something more. You may, perhaps, know that almost every temperance law that has been passed in our State has been repealed or so modified as to be of little account shortly after its passage. Who did it? Why, those who wanted to make money out of our boys, and who did not care a fig whether they went down to ruin or not. Only a short time ago we had a very good law against the sale of cigarettes—or, if you choose, cigarettes to school-children. It was repealed in a very short time, or modified so as to be of but little account. Why was this done? Because it blocked the enormous trade that had been growing up in cigarettes. Ministers, teachers in our schools, mothers, and all good people, gave abundant evidence that the cigarette was worse than poison. It kills soul and body. But it hindered trade. It is the Ohio Whisky League that is busy with its millions of money in repealing our temperance laws as fast as we can make them. The law against permitting boys under age to enter saloons has been a grievous one to the brewers and saloon-keepers; and, if I am correct, it would have been repealed long ago had it not been for the efforts of temperance people to the contrary. Of course, I do not mean to say that the Anti-saloon League has been doing *all* of the temperance work. God forbid that I should get any such idea into my head. The meeting on the evening of July 30 was a private one of only a few people. The one the day after, at the Lancaster camp-meeting grounds, was a public meeting; and among the speakers were some of the best in the State or in any other State. Hon. S. E. Nicholson, of Indiana, the originator of the famous Nicholson Bill, gave us a talk that ought to be given throughout the United States. By the aid of this bill of his framing, 700 saloons have been

closed in Indiana during the past year. He is not only a temperance man and a devout Christian, but he is a *fearless* man. It makes one think of Parkhurst and Roosevelt, of New York, to hear him talk. A great many politicians are fearful that they will not be elected if they come out fair and square against the saloon, or if they have the courage to advise the prompt enforcement of our laws. Mr. N. has not lacked support, by any means, and his experience verifies the promise that godliness is profitable.

Let me add just a word in regard to this Lancaster camp-meeting ground. The city of Lancaster is by no means a temperance town. At the meeting of our Board, a gentleman remarked to me that some years ago he was called upon to give a temperance talk at the county fair at Lancaster; but there was not very much enthusiasm on temperance among the crowd that attended the fair. In the first place, there are over 70 saloons in a town of scarcely 7000 inhabitants. Second, they were selling beer on the fairgrounds to such an extent that they finally moved the stuff out of one of the halls, and gave the whole great building to the use of the beer-sellers. No wonder they could not listen to a temperance lecture.

Now, then, for the campground. I am told the present is the 24th annual meeting on these grounds. Very pretty and substantial cottages have been put up; in fact, the architecture is so tasty and unique than one can spend an hour very profitably passing along the streets and viewing the comfortable summer homes. Like the campground at Lakeside, one never hears an oath, and he is never offended by the smoke of a cigar or cigarette—at least, I did not hear or see any thing of that sort. Everybody you meet is not only bright and intelligent, but looks like a Christian and acts like a Christian. Why, the contrast in going through the crowds of men, women, and children, on this ground, between that of the crowds found in the average city around the railway depots, or even on our county fairgrounds, is just wonderful. It makes me think again and again of that beautiful text:

And there shall in no wise enter into it any thing that defileth, neither whatsoever worked abomination, or maketh a lie; but they which are written in the Lamb's book of life.—REV. 21:27.

Hon. Joshua Levering, presidential nominee of the Prohibition party, said in reply to a reporter: "Our object is simply to close up the saloons, and not to interfere with what a man drinks in his own house. Nearly all the crime in this country, directly or indirectly, is traceable to the saloons." He said further, that the reason of all the troubles in our fair land to-day is "not over-production but under-consumption;" and adds that the prime reason of this under-consumption of the necessities and luxuries is to be found in the waste caused by the liquor habit. We take the above from the Chicago *Advance* of Aug. 6.



I have spoken elsewhere about leaving the train and taking my wheel at New Philadelphia. The first man I inquired of told me that the distance to Newcomerstown was 27 miles. The next man said it was 18 miles, which was exactly right, in a *straight line*. When about

half a mile out of town, however, I found a guideboard that said 22 miles; and right here I had my first evidence of the practical value of a cyclometer. Just a few days ago the boys attached one to my wheel, so as to see how much I covered in running around town and through the gardens in the course of 24 hours. I was greatly astonished to find that some days I make from five to ten miles just running around home. Well, until now I have always had an opinion that a cyclometer was more of a plaything than a thing of any real practical value. When the guideboard told me 22 miles I looked to see where the cyclometer stood, and then I was master of the situation. By glancing at it at any point on the route I could tell just how far along I was. I still kept asking people, however, when opportunity offered, just to test, not the cyclometer, but the average person. When you ask about something only four or five miles away, he is tolerably accurate; when you get up to ten miles he is a good deal confused, and at twenty miles he has only a dim idea of things—that is, generally speaking. But, didn't I rejoice when I reached the upland, and got on to the graveled pike along the canal! It is not only the gravel that makes these main turnpikes so nice, but it is the fact that the hills are graded down so it is an easy matter to run up any of them without slackening your speed to any extent; and it is also an easy matter to run down, even if you have no brake on your wheel. When you get away from the pikes, however, on the country roads of Central and Southern Ohio, as a rule you have to work up the hills; and without a brake on your wheel you will also have to walk down a great many of them. Some of the points are beautiful and romantic. More than once a line of an old song that I heard in my childhood came to mind:

And we'll settle on the banks of the pleasant O-hi-o.

One thing that made the trip pleasant to me was the luxuriant gardens and the amount of fruit that grace the roadside, especially where the road passes over a hill. The peach-trees everywhere were bending and breaking down with their loads of fruit. At friend Nicodemus' we found beautiful peaches in the grocery at only 15 cts. a peck. Before I went away, I found an old farmer who was anxious to bring me a wagonload, or several of them, at only 40 cts. a bushel; and these were good-sized, fine-looking peaches at that. At our home in Medina they were retailing at 50 cts. a peck. I figured on getting some of them by express. But they would have to go over two lines; there was a chance of delay at the transfer; baskets must be bought, and tarleton or some substitute would have to be fastened over the baskets to prevent pilfering; and I was sorry to have to give it up, because the different expenses would bring them up so high that it might not pay, especially if we should have very hot weather during transit. Let me pause a little to suggest that there is still a wrong somewhere.

Before I reached home I stopped for breakfast at a little inland town, ten miles from any railroad, where they wanted me to agree to take their peaches at 10 cts. a bushel—after the late ones were ripe. This is not a new thing. Almost every year in Southern Ohio peaches are sold for 25 cts. a bushel at inland towns; and at this time, only a hundred miles away, or less, they sell for from one to two dollars a bushel. Several times I have tried to make arrangements to benefit both producer and consumer, but I have had to give it up. Let me tell you one of the drawbacks. While off on this trip I repeatedly saw boys and loafers around the railroad

stations grabbing peaches out of the baskets. Friend Nicodemus told me they had it at their station almost every day. Said I:

"Why, friend N., is it possible that your express agent can see this thing going on, and not do any thing about it?"

"Why, Mr. Root, *his own boy* was doing the same thing, and setting the example for the other boys."

Where peaches are only ten or fifteen cents a peck, perhaps they think this is a small matter, and that it is not worth making a fuss about; but when I pay a dollar a bushel for peaches, and get scant measure baskets at that, it makes me feel like fighting to see that more or less fruit has been abstracted from each scant basket. If any express agent sees this, I hope he will make a move for reform in this matter of pilfering fruit.

Friend Nicodemus has certainly a wonderful show of vegetables in almost every line. Why, he had Surehead cabbage almost as large as a bushel basket. In their own town every thing goes by so much apiece. He says he can not sell any thing by weight at all, so these great cabbage-heads have to be retailed for a nickel apiece—just the same price as those that weigh only three or four pounds. He said what troubled him just then was the fear that he might not be able to get even a nickel apiece for all he was going to have. Beets, cucumbers, etc., sold for 10 cts. a dozen or a penny apiece. Monstrous heads of cauliflower brought only a nickel. My impression is that he, like other expert market-gardeners, would probably make more money during a drouth than during this season of abundant rain. Although he had plenty of almost every thing, he happened to be out of green corn. I think I never knew a season yet out that some one or more commodities would be out, and a good price offered for the lucky man who had a supply. His soil is a beautiful loam close to the Tuscarawas River. By the way, said river, during my visit, was on a rampage, and it made my heart sad to see whole fields of corn not only knee-deep in standing water, but in some places just the tassels were sticking out. The people along my route told me they had had a thunder-shower every afternoon regularly.

I was greatly interested in Newcomerstown in going through the immense establishment of James B. Clow & Sons, their business being mainly manufacturing cast-iron water-pipes. What pleased me especially was to see a manufacturing plant employing two hundred or three hundred hands, where power is transmitted entirely by electricity. My friend secured a permit from the office, and we were first ushered into the power-building. A beautiful steam-engine was propelling a power dynamo. Now, although this dynamo was not much larger than an ordinary cooking-range, the man in charge informed us that it produced 250 horse-power. A needle on a dial close by the dynamo told every instant just how many horse-power were being used. Sometimes a piece of ponderous machinery would be suddenly stopped, and the needle would drop back instantly; then some other machine would be started, or perhaps three or four at once, and the magic needle would spring forward to indicate the amount of power suddenly called for. By an ingenious piece of mechanism, steam from the range of boilers was turned on or off in proportion to the power required. Every thing was so still that one could hardly believe that such a tremendous force was passing out through the medium of those little copper wires. But if you listened intently near the cylinder of the engine you could hear the opening and closing

of the ports, as the necessity of the case demanded, to admit or cut off steam.

Then we visited the different buildings where power was being used. A little bit of electric motor, shut up in a closet or box, propels ponderous machinery. It seems almost incredible that such trifling and diminutive pieces of machinery could move a great wide belt of heavy leather with such irresistible power. You see, the idea here is, instead of the old-fashioned way of great long shafting and belting, just a little copper wire carries the amount of force needed. Our readers who visited the World's Fair, perhaps noticed great hoisting machinery that moved overhead on a suitable carriage. Well, the electric motor is located at one end of these movable carriages, and a trained man or boy sits by it and moves simple little levers, much as the motorman uses on the street cars as he throws on and off the electric current. Iron pipes, glowing redhot, large enough for a child to walk through standing erect, are handled by these hoisting-engines as easily and as silently as a child would swing an apple by the stem. I suggested that this work was dangerous to life and limb, even with the best trained experts, to handle the lever. The day after my visit, by the breaking of a chain one poor man was both crushed and blistered by one of these great redhot iron pipes. Was there ever a time in the history of the world when careful and skilled men and women were more needed than now? It seemed to me as I looked on, that, if I were one of those workmen, I should want to be sure that the one who is intrusted with this mighty power should be a devoted Christian. He should be a man who loves his neighbor as himself, in the truest sense of the word—one who would work as carefully and faithfully as if the busy crowd below were each and every one *his own child*. I was pleased to see cooling streams of beautiful pure water all through this great plant. The men who handled the melted iron were, many of them, naked to the waist, and once in a while they would take off their "sweaters"—at least that is what I should call them—and wring out the perspiration, and cool off the garment under one of the steady streams of pure cold water. Every thing is handled with such accuracy and precision, and every thing is kept so neat and tidy throughout the whole plant, that I am told that accidents are *comparatively* rare. Notwithstanding the intense heat at many points, and the laborious work, the utmost good nature seemed to prevail all around among the workmen. Even though the 30th of July was an exceedingly warm day, they all seemed to be bright and happy.



Some time in April, as soon as we could get a piece of ground dry enough, we planted extra early sweet corn, wax beans, shell beans, and early peas. We usually put in all these things early, thinking we shall be so much ahead if the frost does not catch them. If it does, then we can plant over. With the view of planting a second crop between, we put the rows rather farther apart than usual. The frost did not catch them, so we secured a good crop of all, if we except the early sweet corn, which was pretty badly used up by the cut-worms. After the crops had got pretty well along we gave

them an extra good hoeing and cultivating; then with our marker and furrower we made a deep furrow between every two rows. We made this as deep as we could and not injure the beans, corn, and peas by hilling them up too much. Then we planted Craig potatoes in the furrows. The covering had to be done partly with the cultivator and partly by hand; but it enabled us to double-crop the land. The Craig potatoes came up promptly, and for a time we feared they were going to crowd the other stuff; but with the abundant rains they all made an excellent growth. With the tops of the Craig potatoes, and the first crop too, the ground was fully occupied, so there was hardly a chance for a weed to come up. Some weeds did get in, however, especially where the corn was missing on account of the cut-worms, and of course no cultivating with the horse could be done until the early crops were gathered and out of the way. By this time the Craig vines were so rank and long that we had to throw them over to one side with the hoe-handle, so as to get the horse and cultivator through. In this way we gave the whole patch one good cultivating, hoed and pulled by hand all the weeds that got in, then spread the tops back again. The prospect is now that we shall have two good paying crops on the same ground, and for several weeks both crops occupied the ground at the same time. Of course, this makes more work, and necessarily some hand work; but with very rich high-priced ground close to market I think it will pay.

ADULTERATION OF SEEDS.

Mr. J. S. Johnson, of Kyneton, Australia, sends us in a letter a newspaper clipping, which we take pleasure in giving below:

A bill introduced by Mr. Frank Madden, M. L. A., to prevent the adulteration of seeds, and to regulate the sale thereof, has been circulated. It states that any person who with intent to defraud "kills" seeds by artificial means so as to destroy their germinating power, or dyes seeds by any process of coloring, dyeing, or sulphur smoking, or sells any such killed or dyed seeds, shall be liable to a fine of £5 for the first offense, and to one of £50 for the second, and to have his name published, together with the particulars of his offense, at his expense. The bill further provides that "on the trial of any such offense it shall not be necessary to prove an intent to defraud any particular person; it shall be sufficient, to prove that the person accused did the act charged with an intent to defraud." Persons making unreasonable complaints against seedsmen will be liable to pay the costs of the legal proceedings.

I have long been aware that the seeds of commerce are more or less "doctored" by the plans outlined above. Let me explain a little. We used to have a black wax snap bean that we thought a good deal of; but I noticed almost every year that there would be more or less bogus plants among the others. These bogus plants produced a dry-shelled bean looking just exactly like the others; but they had a green pod, and were not a wax bean at all. Now, in this case had the spurious seeds got in accidentally, or was it because the grower was not careful enough to weed out the spurious plants? But years when the seed was very scarce and high-priced, we found more and more of these spurious plants. The customer who purchased them complained, sooner or later, as a matter of course; therefore it became an advantage to kill the vitality of the spurious cheap bean, so that the beans not only looked all right when planted, but looked all right when the crop came up, only it took a good deal more seed to plant a given length of row. Stratagem peas have always been scarce and high-priced; but the dry peas themselves

look so much like the Champion of England that it would take a very keen and practiced eye to tell the difference when they were in the seed-bag; but when the gardener found about half of his Stratagems were the Champion of England, he realized how he had been swindled. If he wanted his peas for table use, it did not make so very much difference; but if he wanted to grow seed himself, so as to have the pure genuine Stratagem, he must hand-pick and sort out the Stratagems from the comparatively cheap and common Champion. In this case, as in the other, if the dealer could kill the vitality of the Champion, then the gardener would not know the difference unless he planted a certain number of seed, say 100, and then counted the plants as they came up.

Now, dear friends, I should be glad to say that there is one seedsman in the United States who furnishes seeds that are always true to name, without any such doctoring and swindling about any thing he sells; but I do not know any such seedsman in the *whole wide world*. There may be one, but I have not found him. One might come pretty near it, if it were possible for him to grow all the seeds himself. We have for many years grown a few of our own seeds, in order to know exactly what we had; but when a seed business begins to assume considerable proportions, it is a pretty hard matter to do this. In fact, very few seeds can be grown to the best advantage in any *one* locality. Still another thing. It requires years of careful training to be able to grow seeds of all kinds fully up to the desired standard. Every little while some great seed grower breaks up in business; and generally, before doing so, he floods the country with seeds more or less doctored, so as to sell them cheaper. We have been victimized twice in this way since we have been selling garden seeds. You will note that we usually mention in our catalog the special seeds that are of our own growing. These are certainly not doctored, and for one I am most heartily in favor of making it a criminal offense for any one to offer seed for sale with the understanding that its vitality has been killed, its sole value being to adulterate and cheapen valuable and high-priced seeds. Good for Australia!

WHAT TO DO.

You may remember I have written a book on this very subject; but things have changed somewhat since then. Only yesterday a man went all over town with some nice Beauty of Hebron potatoes, and finally sold them to me for 20 cts. a bushel, because no one would give any more. One of the clerks in the office said they were offered only 12 cts. a bushel for their crop of new oats.* You know how it is with other things the farmers raise. Nice apples are offered at a price which hardly pays for picking them from the trees. I am not going to try to tell you what the trouble is, for I do not know. Some of the friends say it is silver; some say it is the saloon; still others, that it is over-production. It may be all of these things together, and, of course, it behooves us, each and every one, to do our part in righting the wrong. Meanwhile, what shall we do? This thing of finding myself in debt, without visible way toward paying the debts, has confronted me a great many times in my life, and I remember at least a number of times when I stubbornly set my teeth together and declared I would

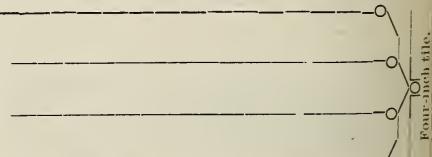
* Since the above was written I find our dealers are paying 20 cts. cash for a nice quality of new oats. Two reasons are given—that for which only 12 cts. was offered was probably not first class in every respect, and since then there has been an advance in price.

stop outgoes until things got in better shape. I said I would take up with the first decent offer for any thing I had to sell; and when I was tempted to pay out money I would take an invoice of my effects and see if I could not find something among my traps that could be made to answer, instead of buying the *new* things. Sometimes it was hard work; but sooner or later after making this decision things began to improve. By watching carefully for chances I almost always found places where I could accommodate somebody, and get my pay for it too.

Mrs. Root remarked at the breakfast-table that there was at least one commodity that was not so very cheap—beefsteak. It is still a very necessary article for at least one member of our family; yet all the materials for producing beef at a low price are plentiful and cheap. People have wants now just as they always did—*innumerable* wants. For instance, “home helpers” are not plentiful, even when good prices are offered. I mean by “home helpers” somebody to help your wife to do the same kind of work she does *herself* every day. Now, then, I will tell you what I am going to do: If so little is offered for what I produce that I can not get out whole, I am not going to invest either money or labor in any thing until I have pretty good evidence that somebody will pay a decent price for it. I am going to stop *buying*, and try to be happy with the things I already have. I can remember when my father and mother lived in a log cabin in the woods. They did not have money in those days—not even “nickels” that are thrown about so freely just now. They managed to produce, away back there in the woods, almost all the necessities of life, and I do not know but they and their children were about as happy as people who have all modern luxuries. Yes, they were certainly a good deal *happier* than some people with all that modern conveniences and luxuries can supply.

SUB-IRRIGATION BY MEANS OF COMMON DRAIN-TILE.

Friend Root—While visiting friends in the drought-stricken regions of Kansas last summer I had my first chance to see a practical test of sub-irrigation. Mr. Linn, of Osborne, had a 2½-acre plat sub-irrigated, with most wonderful results. It was all in vegetables, and such growth I never saw—onions, 800 bushels per acre; immense cauliflower, mangels, cabbages, tomatoes, etc. He told me that he would get back first cost the first year. As you are interested in sub-irrigation I thought to send you a very rough sketch of the plan. I think the plan of watering one plat more than another is original with Mr. Linn—at least, so far as I know.



Each line represents 3-inch tile laid 12 inches deep, and lines of tile 10 feet apart. The round spot (O) is a small tube, with a plug, so as to give more or less water to the different plats, as some need more than others. In this case the water supply was furnished from a well and windmill.

J. W. MARGRAVE.
Hiawatha, Kan., July 20.

The above arrangement will work all right, without question; but it will take some manipulation to open and close the holes by means of plugs; but perhaps this will be the only way to get the water where it is needed most and not have any where it is not needed. I would suggest that, if the tiles are laid only a foot deep,